OU1 RISK ASSESSMENT

Quantitative Assessment	Qualitative Assessment
Pros: • NCP refers to numerical departure points for cancer: evaluate risk range 1E-6 – 1E-4 • RAGs guidance recommends quantitative assessment • Uses best available science. (Note: More data will likely not reduce variability or improve correlation between ABS data and visible score. The OU4 risk assessment needs additional exposure assessment information (background, low-activity, and worker exposures) and nature and extent information (rescreening for visual vermiculite), NOT a better correlation.) The note seems out of place. Needing additional exposure data is a show stopper for a quantitative risk assessment for cancer and non-cancer endpoints. It is a clear con. I don't understand the issue about ABS and visible score. Any quantitative risk assessment must be based on real exposure data and quantitative estimates of toxicity. Who is planning to use visible score as a decision point for cleanup?	Pros: • Does not set precedence regarding quantitative assessment methodology. See other note about precedent setting.
Cons: • Concern about setting precedence for OU4. • Correlation between OU4 ABS data and Vis. Verm. Score is statistically poor because of the variability. I don't understand the emphasis on precedent setting. Doing a quantitative assessment for a site is done all the time. I don't buy any argument based on the fact that no risk assessment (qual or quant) has been done for any OU at Libby. Again who wants to use visible score as a decision point? It is not a risk based value.	Cons: • Does not (*but could*) address current risk from surface conditions at site. Why is this "does not"? I don't understand why this is a con. Does it become a pro if subsurface contamination is considered? • Still sets precedence with respect to other OUs, since it's the first risk assessment. I don't buy this. • Sets precedence regarding impact of subsurface material as OU4 also has subsurface source material. It is common to address subsurface contamination at a site. Usually this is done in the context of a construction worker scenario. Where is the precedent? • Does not use the best available quantitative information; sets precedence for rejecting data on the basis of variability, which will be an issue at all OUs. Since visible contamination is not a reliable indicator for a clean-up decision, this is not rejecting valid data and is not a precedent.

Summary:

Whether qualitative or quantitative assessment is performed, the OU1 risk assessment sets precedence for other OUs. I don't buy this.

Consensus Toxicologists' Recommendation:
Develop both a quantitative cancer risk assessment (addressing surface conditions) and a qualitative assessment (addressing both surface and subsurface conditions) to provide a multiple lines of evidence justification for the remedy. Do not develop a quantitative non-cancer risk; instead qualitatively discuss non-cancer risks (e.g. using ATSDR information), since the Draft RfC has not yet been peer reviewed.

I don't agree with this recommendation. I think it is misleading in any risk assessment to ignore the serious non-cancer endpoint from exposure to Libby Amphibole. I don't think the ATSDR data cuts the mustard as it has no quantitative basis. The barrier to conducting peer review in a reasonable time of the RfC based on the Marysville cohort should be overcome.